a communications driver executed by the processing unit, the communication driver comprising a UART emulation which in response to an access targeted at a register set of a UART corresponding to the first communication port, converts the access as required for the register set and address assignment of the device.

2. The system of claim 1, wherein the local bus comprises an ISA bus.

3. The system of claim 1, wherein the device coupled to the local bus, further comprises:

a comparator adapted for receiving a data signal from the local bus;

a pattern generator coupled to the comparator, wherein the pattern generator generates a signal for comparison with the data signal;

a counter operably coupled to the comparator, wherein the counter resets to an initial state following the comparator indicating the data signal is not equal to the pattern signal and advances toward a final state following the comparator indicating the data signal equals the pattern signal; and

a register coupled to the counter and adapted to receive a signal from the local bus, wherein in response to the counter reaching the final state, the register latches from the local bus a value which indicates the base address of the I/O slot occupied by the device.

4. (Previously Amended) A method for communication between a computer and a device having an I/O interface which differs from the I/O interface of a UART, comprising:

coupling the I/O interface of the device to a local bus in the computer;

allocating in a memory of the computer, storage locations which correspond to registers of a UART; and

transmitting information via the local bus between the I/O interface of the device and the allocated storage locations in the memory of the computer.

5. (Twice Amended) The method of claim 4, further comprising transmitting [from an application to] via a communications driver a packet formatted for a UART, wherein [the communication driver] a UART emulation updates a value in the storage locations according to a value in the packet.

LAW OFFICES OF
SKJERVEN, MORRILL,
MACPHERSON, FRANKLIN
& FRIEL LLP

25 METRO DRIVE
SUITE 700
SAN JOSE, CA 95110
(408) 453-9200
FAX (408) 453-7979

6. (Twice Amended) The method of claim 5, wherein the [communication driver] UART emulation performs the step of transmitting by:

converting a value from the allocated storage to a converted value compatible with the I/O interface of the device; and

writing the converted value to a register in the device via the local bus.

7. (Previously Amended) The method of claim 4, wherein transmitting further comprises:

reading values from a register of the device via the local bus; and

updating the storage locations according to the value read.

8. (Previously Amended) The method of claim 7, further comprising transmitting from a communications driver to an application information from the storage locations.

9. The method of claim 4, further comprising:

executing on the computer an operating environment which allocates I/O slots on the local bus for UARTs; and

setting a base device address for the device to correspond to one of the I/O slots allocated by the operating environment for the UART.

10. (Previously Amended) The method of claim 9, wherein setting the base device address comprises:

sensing, by the device, of a data signal on the local bus;

comparing the data signal to a signal from a pattern generator in the device;

advancing a state indicator toward a final state in response to the data signal being equal to the signal from the pattern generator;

repeating the steps of sensing, comparing, and advancing until the state indicator reaches the final state; and

setting the base address of the device to a value indicated by a signal on the local bus in response to the state indicator reaching the final state.

17. A host signal processing modem comprising:

LAW OFFICES OF
SKJERVEN, MORRILL,
MACPHERSON, FRANKLIN
& FRIEL LLP

25 METRO DRIVE
SUITE 700
SAN JOSE, CA 95110
(408) 453-9200
FAX (408) 453-7979